

Notice of Allowability

Application No.

Applicant(s)

09/473,263

KINSMAN, LARRY D.

Examiner

Art Unit

Lourdes C. Cruz

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to An Amendment filed 12-22-02.
2. ☒ The allowed claim(s) is/are 1-6 and 8-24.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
(a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS must be submitted.
(a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No. _____.
(b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
(c) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. 4.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1 ☐ Notice of References Cited (PTO-892)
3 ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
5 ☐ Information Disclosure Statements (PTO-1449), Paper No. _____.
7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 2 ☐ Notice of Informal Patent Application (PTO-152)
4 ☐ Interview Summary (PTO-413), Paper No. _____.
6 ☒ Examiner's Amendment/Comment
8 ☒ Examiner's Statement of Reasons for Allowance
9 ☐ Other

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

See that MPEP 606.01 states *"If a satisfactory title is not supplied by the applicant, the examiner may, at the time of allowance, change the title by examiner's amendment."*

The application has been amended as follows:

In the title:

Substitute the title for "Vertically Mountable Semiconductor Device"

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: There is prior art regarding vertically mounted semiconductor devices. See, for example, Beilstein, Jr. et al. (US 5786628).

However, see that the term "bond pad" is commonly used in the semiconductor device industry as a metal pad on a semiconductor die where wire bonds can be attached to connect the die to the outside world. See that this is the definition Applicant is using for his/her pads.

In view of the foregoing, it is apparent that the prior art of record lacks any express or inherent description, either alone or in combination, of several of the elements as recited in the independent claims (as amended and presented). In particular, the prior art of record lacks any express or inherent description of a semiconductor device which includes a plurality of bond pads (as defined by Applicant) disposed adjacent and edge of a surface thereof, the bond pads arranged substantially in-line with one another, wherein the device additionally includes conductive bumps secured to the bond pads thereof; wherein all the above is combined in a vertically mounted arrangement. All the above in combination with all the specific structural limitations recited in the claims is neither obvious over nor anticipated by the prior art of record. Hence the notice of allowability found herein.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lourdes C. Cruz whose telephone number is 703-306-5691. The examiner can normally be reached on M-F 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Application/Control Number: 09/473,263
Art Unit: 2827

Page 4

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Elle Cruz
June 23, 2003

Lourdes C. Cruz
Examiner
Art Unit 2827



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SPE 2829